AMENDMENTS TO THE CLAIMS

1. – 23. (Canceled)

24. (New) A method of locating a portable device wherein a signal is transmitted from the portable device and received at various strengths at plural receivers in plural zones or wherein plural signals are transmitted from plural transmitters in plural zones and received at various strengths by the portable device, the method comprising:

ranking the signals received at various strengths in the order of strength;

considering the m strongest signals to be a first subset, where m is a positive integer;

when a majority of the m strongest signals of the first subset are associated with a same zone, considering that same zone to be a candidate zone;

adding a value k to the strongest signal not in the first subset, which may or may not change the ranking of the signals received at various strengths in the order of strength;

considering the m strongest signals to be a second subset;

when a majority of the m strongest signals of the second subset are associated with a same zone, determining whether that same zone matches the candidate zone, and if so, determining the portable device to be located in the candidate zone.

25. (New) The method of claim 24, wherein said method first sets m equal to 1, and if the portable device cannot be determined as being located in the candidate zone, said method increments m to equal 2 and repeats analysis of the first and second subsets in an attempt to locate the portable device.

26. (New) The method of claim 25, wherein if the portable device cannot be determined as being located in the candidate zone when m equals 2, said method increments m to equal 3 and repeats analysis of the first and second subsets in an attempt to locate the portable device.

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27.   (New) The method of claim 24, wherein said method first sets m equal to the positive integer, and if the portable device cannot be determined as being located in the candidate zone, said method increments m to equal the positive integer plus one and repeats analysis of the first and second subsets in an attempt to locate the portable device.

28.   (New) The method of claim 27, wherein if the portable device cannot be determined as being located in the candidate zone after a first incrementing of m, said method continues a cycle of incrementing m and repeating analysis of the first and second subsets in an attempt to locate the portable device.

29.   (New) The method of claim 24, wherein the plural zones correspond to floors of a building.

30.   (New) The method of claim 24, wherein the value k equals a fixed amount between 4 and 6 dB, inclusive.

31.   (New) The method of claim 24, wherein the value k equals a variable amount that is dependent on the value of m.

32.   (New) The method of claim 24, wherein the signals received at various strengths are specifically for locating the portable device.

33.   (New) The method of claim 24, wherein the signals received at various strengths are packets of data by which the portable device communicates with an access point.

34.   (New) The method of claim 24, wherein the signals received at various strengths are received by the portable device.

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35.   (New) The method of claim 24, wherein the signals received at various strengths are received by the plural receivers.

36.   (New) An apparatus for locating a portable device wherein a signal is transmitted from the portable device and received at various strengths at plural receivers in plural zones or wherein plural signals are transmitted from plural transmitters in plural zones and received at various strengths by the portable device, the apparatus comprising:

    a processor:

        ranking the signals received at various strengths in the order of strength;

        considering the m strongest signals to be a first subset, where m is a positive integer;

        when a majority of the m strongest signals of the first subset are associated with a same zone, considering that same zone to be a candidate zone;

        adding a value k to the strongest signal not in the first subset, which may or may not change the ranking of the signals received at various strengths in the order of strength;

        considering the m strongest signals to be a second subset;

        when a majority of the m strongest signals of the second subset are associated with a same zone, determining whether that same zone matches the candidate zone, and if so, determining the portable device to be located in the candidate zone.

37.   (New) The apparatus of claim 36, wherein said processor first sets m equal to 1, and if the portable device cannot be determined as being located in the candidate zone, said processor increments m to equal 2 and repeats analysis of the first and second subsets in an attempt to locate the portable device.

38.   (New) The apparatus of claim 37, wherein if the portable device cannot be determined as being located in the candidate zone when m equals 2, said processor increments m to equal 3 and repeats analysis of the first and second subsets in an attempt to locate the portable device.

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39.   (New) The apparatus of claim 36 wherein said processor first sets m equal to the positive integer, and if the portable device cannot be determined as being located in the candidate zone, said processor increments m to equal the positive integer plus one and repeats analysis of the first and second subsets in an attempt to locate the portable device.

40.   (New) The apparatus of claim 39, wherein if the portable device cannot be determined as being located in the candidate zone after a first incrementing of m, said processor continues a cycle of incrementing m and repeating analysis of the first and second subsets in an attempt to locate the portable device.

41.   (New) The apparatus of claim 36, wherein the plural zones correspond to floors of a building.

42.   (New) The apparatus of claim 36, wherein the value k equals a fixed amount between 4 and 6 dB, inclusive.

43.   (New) The apparatus of claim 36, wherein the value k equals a variable amount that is dependent on the value of m.

44.   (New) The apparatus of claim 36, wherein the signals received at various strengths are specifically for locating the portable device.

45.   (New) The apparatus of claim 36, wherein the signals received at various strengths are packets of data by which the portable device communicates with an access point.

46.   (New) The apparatus of claim 36, wherein the signals received at various strengths are received by the portable device and transmitted to said processor.

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47.   (New) The apparatus of claim 36, wherein the signals received at various strengths are received by the plural receivers and transmitted to said processor.

48.   (New) The apparatus of claim 47, wherein the plural receivers also transmit receiver location information to said processor.

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